4. Dinesh (continued)

Sample input:

```
ONE TWO THREE FOUR
5
ONE TWO 4
ONE THREE 20
THREE FOUR 5
ONE FOUR 14
TWO FOUR 8
5
ONE TWO
ONE THREE
ONE FOUR
THREE FOUR
THREE TWO
ALPHA BETA GAMMA DELTA EPSILON
ALPHA BETA 1
ALPHA GAMMA 7
ALPHA EPSILON 3
BETA EPSILON 6
GAMMA EPSILON 2
EPSILON DELTA 3
3
ALPHA DELTA
BETA GAMMA
EPSILON BETA
```

Sample output:

ONE to TWO:4
ONE to THREE:17
ONE to FOUR:12
THREE to FOUR:5
THREE to TWO:13
ALPHA to DELTA:6
BETA to GAMMA:6
EPSILON to BETA:4